

The following is a list of butterflies taken and identified:—

|                                   |                                    |
|-----------------------------------|------------------------------------|
| <i>Erebia ligea</i> Linn.         | <i>Vacciniina optilete</i> Knoch.  |
| <i>E. pandrose</i> Bkh.           | <i>Lycaena phlaeas</i> Linn.       |
| <i>Oeneis jutta</i> Hübn.         | <i>Palaechrysophanus hippothoe</i> |
| <i>O. noma</i> Thnbg.             | Hübn.                              |
| <i>Euphydryas iduna</i> Dalm.     | <i>Pieris napi</i> Linn.           |
| <i>Clossiana freija</i> Thnbg.    | <i>Colias nastes</i> Boisd.        |
| <i>C. frigga</i> Thnbg.           | <i>C. palaeno</i> Linn.            |
| <i>C. improba</i> Btlr.           | <i>C. hecla</i> Lef.               |
| <i>C. euphrosyne</i> Linn.        | <i>Papilio machaon</i> Linn.       |
| <i>Boloria sifonica</i> Gr. Grsh. | <i>Pyrgus centaureae</i> Rambr.    |
| <i>B. pales</i> Schiff.           | <i>P. andromedae</i> Wallgr.       |
| <i>Lycaeides idas</i> Linn.       | <i>Hesperia comma</i> Linn.        |

## New Synonymy and Notes on Some Species of the Genus *Zygaena* Fabricius, Lepidoptera, Zygaenidae

By W. G. TREMEWAN,

Department of Entomology, British Museum (Natural History).

The following notes have been compiled during the rearrangement of part of the *Zygaena* collection in the British Museum (Natural History).

### ***Zygaena sarpedon* Hübner.**

*Sphinx sarpedon* Hübner, 1790, Beitr. zur Geschichte der Schmett., 2: 85, pl. 1C.

*Sphinx sarpedon* Hübner, 1796, Europ. Schmett., 2, pl. 2, fig. 9.

*Sphinx sarpedon* Hübner, 1805, Europ. Schmett., 2: 83.

The species was first described and figured by Hübner in 1790, when he stated that there were specimens originating from Italy in Gerning's collection in Frankfurt. In 1796, Hübner figured the species again in *Sammlung europäischer Schmetterlinge* and gave a description in this work in 1805. In this second description Hübner stated that the species came from Languedoc. Burgeff (1926a) has examined the Gerning collection, now preserved in the Museum at Wiesbaden, and found four specimens of *sarpedon* which agree fairly well with Hübner's figures of 1790 and 1796. It is probable that Hübner described *sarpedon* from these specimens; if this is correct, then the four specimens may be considered the type material. It has been assumed by most authors that the locality "Italy" is erroneous, with which I agree. The fact that Hübner changed the locality to Languedoc in 1805 suggests that the quotation "Italy" may be incorrect.

Oberthür (1884) stated that the dominant form found at Montpellier agrees with the type.

Reiss (1958) gives an account similar to what I have written above and takes Montpellier, which lies in the province of Languedoc, as the type locality.

**Zygaena sarpedon** Hübn. (? ssp.) ab. **trimaculata** Esper.

*Sphinx trimaculata* Esper, 1793, Die Schmett., Suppl. 2(2): 16, pl. 40, figs. 7, 8.

Esper described *trimaculata* from Nîmes, Languedoc. I have been unable to examine material from Nîmes, but in all probability the population from this locality is identical with the population from Montpellier. If this assumption is correct, *trimaculata* would be rarer than the normal form and should be treated as an aberration of the nominate race, viz., *sarpedon sarpedon* Hübn. Reiss (1930) and Burgeff (1926b) have treated *trimaculata* Esp. as a race.

**Zygaena sarpedon** Hübn. ssp. **carmencita** Oberthür.

*Zygaena Carmencita* Oberthür, 1910, Lép. Comp., 4: 457.

In a catalogue (at present in manuscript) of the type material in the British Museum of the genus *Zygaena* F., I selected as the lectotype of *carmencita* Obthr. a specimen from Vernet-les-Bains. It was suggested to me that a better choice might have been a specimen from Vendée (Reiss, *in lit.*). However, a specimen was selected from Vernet-les-Bains as the latter is the locality first given by Oberthür. The lectotype selection has already been established by Bernardi & Viette (1959) who, in the same publication, described the race from Vendée as ssp. *pictonorum* Bernardi & Viette as it differs from ssp. *carmencita* Obthr. from Vernet-les-Bains.

**Zygaena sarpedon** Hübn. ssp. **carmencita** Obthr. ab. **vernetensis** Oberthür.

*Zygaena Sarpedon* var. *Vernetensis* Oberthür, 1884, Etud. d'Ent., 8: 28.

Bernardi & Viette (1959) placed *carmencita* Obthr. as a synonym of *vernetensis* Obthr. as they considered the latter name to have subspecific status. It is obvious, however, that Oberthür implied in the text that he considered *vernetensis* an aberration even although he prefixed the name with the term "var." In the past the term "var" was often used indiscriminately to denote both aberrations and geographical races or subspecies. Further, Oberthür stated that *vernetensis* was found constantly but rarely with the normal form at Vernet-les-Bains and that it is analagous with *rhadamanthus* ab. *kiesenwetterii* H.-S. When describing *carmencita* in 1910, he obviously referred to the commoner form occurring at Vernet-les-Bains and considered it a race.

**Zygaena diaphana** Stdgr. ssp. **pimpinellae** Reiss.

*Zygaena pimpinellae* Reiss, 1940, Stettin. ent. Ztg., 101(3): 4.

*Zygaena purpuralis* f. *pimpinellae* Guhn, 1932, Ent. Jb., 41: 89.

In 1910, Guhn discovered in great numbers at Rudersdorf, near Berlin, a species of the *purpuralis* group whose larvae were greyish-white and fed on *Pimpinella nigra* Wild. In 1932, the specimens were described by Guhn as *purpuralis* f. *pimpinellae* Guhn. In the same publication he described the larvae of what is known to be the true *purpuralis* as lemon yellow in colour and stated that its foodplant was *Thymus serpyllum* L.

In 1940, Reiss published a paper on *purpuralis* and *pimpinellae* in which he raised the latter to the status of species. As Guhn described *pimpinellae* as a form, the name has no nomenclatural status. Accord-

ing to the rules of nomenclature, Reiss must now be considered the author of *pimpinellae*. Reiss is the first worker to separate *pimpinellae* as a species distinct from *purpuralis*. In his paper, Reiss not only described and figured the genitalia but also gave descriptions and figures of *pimpinellae*, which he compared with the true subspecies of *purpuralis* occurring in the Berlin area.

In the series of *pimpinellae* from various localities that Reiss had before him, there were four of the original specimens collected by Guhn from Rudersdorf. Reiss declared these specimens as the "type population". These four specimens, from which a lectotype may be selected if necessary, should be considered the syntypes or type material of *pimpinellae* Reiss.

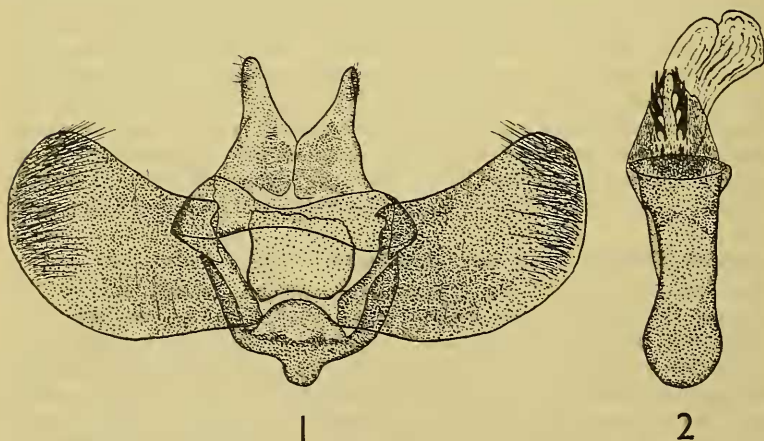
Reiss (1941) published a further account in which he wrote that *sareptensis* Rebel had been found to be conspecific with *pimpinellae*. As the name *sareptensis* has priority over *pimpinellae*, it was correctly treated as the species name, and *pimpinellae* was reduced to subspecific status.

More recently, *diaphana* Stdgr. was found to be conspecific with *sareptensis* and *pimpinellae* and, having been described earlier, was treated as the species name (Alberti, 1958; Tremewan, 1958). It was originally described by Staudinger as a race of *purpuralis* Brunn.

#### **Zygaena maroccana** Rothschild.

*Zygaena carniolica maroccana* Rothschild, 1917, Novit. zool., 24: 342.

The species was described from a single female found in a small collection of lepidoptera that Rothschild acquired from Staudinger and Bang-Haas. The specimen is labelled "Mogador Marokko". No further specimens have been taken from this locality and the data may be erroneous.



Male genitalia of *Zygaena maroccana* Roths. 1, genitalia; 2, aedeagus.

Until recently the male of *maroccana* was unknown. While sorting miscellaneous material in the Rothschild collection I found a slightly worn specimen which I immediately recognised as this species. The

specimen is a male and in superficial characters is similar to the female type. It differs, however, in having a narrow whitish ring only around spot 4 in the forewings, while in the female, spots 2, 3 and 4 are strongly ringed with white. The male genitalia are illustrated (figs 1, 2) and show *maroccana* Roths. to be a species distinct from *lucasi* Le Charles.

The specimen has the following data: "Tizi N'Tichka, Gt. Atlas, 12 km. W. of Telouet, 2450 m., 11.6.27 (E. Hartert)". Zygaenidae Slide No. 744.

The following are descriptions of two new aberrations of *Zygaena lonicerae* Scheven.

***Zygaena lonicerae* Scheven ssp. *major* Frey ab. *burrasi* ab. nov.**

♂, 34 mm. Coloration as in normal specimens of ssp. *major*, but spot 4 is absent while spots 1, 2, 3 and 5 are reduced in size.

Holotype ♂, "Fours. B.A 8.56 A.E.B", in A. E. Burras collection.

The holotype was taken at Fours, Basses-Alpes, by Mr. A. E. Burras, to whom I am indebted for the loan of the specimen.

***Zygaena lonicerae* Scheven ssp. *linnéi* Reiss ab. *hanseni* ab. nov.**

♂, 36 mm. Coloration as in normal specimens of ssp. *linnéi*, but spot 3 is absent while spots 1, 2, 4 and 5 are reduced in size.

Holotype ♂, "12.7. 1942. Skaering. Rich. H.", in R. Hansen collection.

The specimen is figured by Hoffmeyer (1948) and was captured at Skaering, north of Aarhus, Jutland.

My thanks are due to Mr. Richard Hansen for allowing me to describe the aberration. Acknowledgment is also due to Dr. Skat Hoffmeyer who made the necessary arrangements to send the specimen to me on loan.

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